

Amendments to the Claims

1. (Currently Amended) A method comprising:
identifying a receive capability associated with one or more priority levels of
Ethernet traffic for a network device;
determining a flow control priority level based on one or more of a class-of-
service, a type-of-service, a quality-of-service, and a time sensitivity of the
Ethernet traffic, wherein the flow control priority level denotes an
identified priority level above and/or below which the network device is
able to receive Ethernet traffic; and
generating a control message including a the flow control priority level, the flow
control priority level to cause throttling of Ethernet traffic from network
devices receiving the control message denoting the identified priority level
above or below which the network device has the ability to receive
Ethernet traffic.
2. (Currently Amended) A method ~~according to~~ of claim 1, further comprising:
transmitting the generated control message to a communicatively coupled
network device, whereupon receipt of the generated control message the
communicatively coupled network device acts in accordance with the
received control message to suspend a subset of Ethernet traffic.
3. (Currently Amended) A method ~~according to~~ of claim 1, wherein the identifying
further comprises ~~comprise~~ determining available buffer capacity for each of a

plurality of buffers associated with a commensurate plurality of Ethernet priority levels.

4. (Currently Amended) A method ~~according to~~ of claim 3, wherein the available buffer capacity associated with a particular Ethernet priority level denotes the ability of the buffer to receive additional Ethernet traffic of that priority level.
5. (Currently Amended) A method ~~according to~~ of claim 3, wherein the buffer for each priority level is comprised of one or more memory ~~devices~~ device(s).
6. (Currently Amended) A method ~~according to~~ of claim 3, wherein the buffers associated with each of the priority levels are virtual buffers implemented within a common physical buffer.
7. (Currently Amended) A method ~~according to~~ of claim 3, wherein the generated control message includes an indication of the priority level above which a receive buffer has available capacity to receive Ethernet traffic of an associated priority level.
8. (Currently Amended) A method ~~according to~~ of claim 7, wherein a receiving network device initiates a pause in transmission of Ethernet traffic having a priority level below that indicated in the received control message.

9. (Currently Amended) A method ~~according to~~ of claim 1, wherein the generating a of the control message further comprises~~[[:]]~~ generating an Ethernet control packet including a priority field, wherein the priority field ~~denoting~~ denotes the flow control priority level.
10. (Currently Amended) A method ~~according to~~ of claim 9, wherein the priority field is included in a header portion of the Ethernet control packet.
11. (Currently Amended) A method ~~according to~~ of claim 1, further comprising:
receiving Ethernet traffic;
identifying a priority level associated with each packet of received Ethernet traffic; and
forwarding each received packet to a receive buffer based, at least in part, on the identified priority level associated with the Ethernet packet.
12. (Currently Amended) A method ~~according to~~ of claim 11, further comprising~~[[:]]~~
monitoring the receive capability of buffers associated with each of the priority levels of Ethernet traffic; ~~and issuing control messages, as necessary, to throttle transmission of at least a subset of Ethernet traffic in accordance with the identified receive capability associated with the one or more priority levels.~~
13. (Currently Amended) A method ~~according to~~ of claim ~~12~~ 1, wherein throttling transmission of a subset of Ethernet traffic comprises temporarily suspending transmission of the subsets of Ethernet traffic for a set period of time and/or until

another control message is received denoting that transmission of the subset of Ethernet traffic may resume.

14. (Currently Amended) A method comprising:
receiving a control message denoting a flow control priority level from a network device which denotes an identified priority level above and/or below which the network device is able to receive Ethernet traffic, wherein the flow control priority level is based on one or more of a class-of-service, a type-of-service, a quality-of-service, and a time sensitivity of the Ethernet traffic, wherein the flow control priority level; and
throttling transmission to the network device of a subset of Ethernet traffic having a priority level above or below that denoted in the received control message.
15. (Currently Amended) A method ~~according to~~ of claim 14, wherein the flow control priority level denotes a priority level associated with a subset of Ethernet traffic above which the issuing network device has a receive capability.
16. (Currently Amended) A method ~~according to~~ of claim 14, wherein the control message is an Ethernet control message.
17. (Currently Amended) A method ~~according to~~ of claim 16, further comprising~~[[:]]~~
analyzing a header pf the received Ethernet control message to identify a flow control priority level.

18. (Currently Amended) A method ~~according to~~ of claim 14, wherein throttling transmission comprises~~[[:]]~~ suspending transmission of a subset of Ethernet traffic having a priority level below the flow control priority level denoted in the received control message until a subsequent control message is received denoting an ability of an issuing network device to receive the subset of Ethernet traffic.
19. (Currently Amended) A method ~~according to~~ of claim 14, further comprising: receiving content from a host network device for transmission to another network device communicatively coupled through an Ethernet network; and assigning a priority level to the received content based, at least in part, on a source of such content.
20. (Currently Amended) A method ~~according to~~ of claim 14, further comprising: receiving content from one or more source applications executing on a host network device, the content tagged with a priority level associated with its source application; and selectively transmitting received content to another network device communicatively coupled through an Ethernet network based, at least in part on the priority level of the content ~~and received control message(s) throttling transmission of a subset of such Ethernet traffic.~~

21. (Currently Amended) A network interface comprising:
a plurality of receive buffers, each associated with a particular priority level of Ethernet traffic; and
control logic, coupled to the receive buffers to
determine a flow control priority level based on one or more of a class-of-service, a type-of-service, a quality-of-service, and a time sensitivity of the Ethernet traffic, wherein the flow control priority level denotes an identified priority level above and/or below which the network device is able to receive Ethernet traffic, and
identify a receive capability of each of the receive buffers and selectively generate control messages ~~message(s)~~ including ~~a~~ the flow control priority level to cause throttling of Ethernet traffic from network devices receiving the control messages ~~denoting the identified priority level above or below which the network interface has the ability to receive Ethernet traffic.~~
22. (Currently Amended) A network interface ~~according to~~ of claim 21, further comprising:
a transmit buffer, responsive to a host network device and the control logic, to receive content from one or more applications ~~application(s)~~ executing on the host network device for transmission to other network devices ~~device(s)~~ through an Ethernet network, the received content including an indication of priority level.

23. (Currently Amended) A network interface ~~according to~~of claim 22, wherein the indication of priority level in the received content is determined by its source application.
24. (Currently Amended) A network interface ~~according to~~of claim 22, wherein the control logic receives control ~~messages~~ message(s) from other network ~~interfaces~~ interface(s), wherein at least a subset of the control messages include a flow control priority level denoting an inability to receive Ethernet traffic having a priority level below that of the denoted flow control priority level.
25. (Currently Amended) A network interface ~~according to~~of claim 24, wherein the control logic suspends transmission of Ethernet traffic having a priority level below that of the denoted flow control priority level from the transmit buffer to the network device having issued the control message.
26. (Currently Amended) A network interface ~~according to~~of claim 21, wherein the control logic is a media access controller (MAC).
27. (Currently Amended) A network interface ~~according to~~of claim 26, the MAC including enhanced flow control capability to implement flow control on a mere subset of Ethernet traffic.

28-30. (Cancelled)

31. (New) A machine-readable medium having sets of instructions, which when executed by a machine, causes the machine to:
- identify a receive capability associated with one or more priority levels of Ethernet traffic for a network device;
- determine a flow control priority level based on one or more of a class-of-service, a type-of-service, a quality-of-service, and a time sensitivity of the Ethernet traffic, wherein the flow control priority level denotes an identified priority level above and/or below which the network device is able to receive Ethernet traffic; and
- generate a control message including a flow control priority level, the flow control priority level denoting the identified priority level above or below which the network device has the ability to receive Ethernet traffic.
32. (New) The machine-readable medium of claim 31, wherein the sets of instructions, when executed by the machine, further cause the machine to transmit the generated control message to a communicatively coupled network device, whereupon receipt of the generated control message the communicatively coupled network device acts in accordance with the received control message to suspend a subset of Ethernet traffic.
33. (New) The machine-readable medium of claim 31, wherein the sets of instructions, when executed by the machine, further cause the machine to determining available buffer capacity for each of a plurality of buffers associated with a commensurate plurality of Ethernet priority levels